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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,937	07/29/2003	Dong-Kuk Kim	4591-321	9040
20575	7590	01/10/2006	EXAMINER	
MARGER JOHNSON & MCCOLLOM, P.C. 210 SW MORRISON STREET, SUITE 400 PORTLAND, OR 97204			GRAY, LINDA LAMEY	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/629,937

Applicant(s)

KIM ET AL.

Examiner

Linda L. Gray

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12-18 and 20 is/are rejected.
- 7) ☐ Claim(s) 19 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**Detailed Action**

**Claim Rejections - 35 USC 102**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. **Claims 12-18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Nam et al. (US 6,742,561).**

**Claim 12**, Nam et al. teach apparatus 40 including the following items:

- (a) means 42 for providing substrate 60,
- (b) tape providing unit 74 for providing tape 68,
- (c) tape attaching device 52, and
- (d) chip attaching device 54 (c 3, L 10, to c 4, L 42).

The other limitations of claim 12, and claim 20, are functional limitations for which apparatus 40 is capable of performing.

**Claim 13**, unit 74 includes reel 40 and wound insulating tape 68, tape cutter 48 capable of cutting tape 68, rollers 46A and 46B capable of feeding tape 68 from reel 40 to cutter 48, tape adsorption device 50 capable of adsorbing tape 68 to support tape 60, and first holding device 49 capable of engaging tape 68 with device 50 to hold tape 68 in position for cutting. **Claim 14**, means 41 includes a cassette. **Claim 15**, apparatus 40 includes a substrate conveyor unit located near the cassette at one end. **Claim 16**, device 52 is located between unit 74 and the conveyor. **Claim 17**, apparatus 40 includes wafer table 56 and wafer 70 including second chip 72. **Claim 18**, device 54 is located between table 56 and the conveyor.

**Allowable Subject Matter**

3. **Claims 1-11 are allowed.**

**Claims 19 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten independent form including all of the limitation of the base claim and any intervening claims.**

4. The following is a statement of reasons for the indication of allowable subject matter:

**claim 19:** Nam et al. do not teach and it would not have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Nam et al. that tape attaching device 52 is rotatable through an angle of 90 degrees to place the tape with a variable orientation where "onto the first cover film" in claim 19 is a functional limitation of claim 19 for which apparatus 40 is capable of performing. Note that Nam et al. demonstrate that device 52 operates in a reciprocating up/down manner and in a direction transverse to the direction of feed of substrate 60, not rotatable through an angle of 90 degrees; and

**claim 21:** reels which separate a cover film from a cover film from a tape are conventional as demonstrated by Koza et al. (US 5,431,767) at column 6, lines 58-68; however, Nam et al. do not teach and it would not have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Nam et al. reels capable of separating a cover film from tape 68 in that Nam et al. teach tape 68 to be insulating adhesive tape without a cover film such that reels capable of separating a cover film from tape 68 would not be necessary since a cover film is not present.

**5.** As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP 707.07(a).

**Response to Applicant's Comments**

**6.** Applicant's comments filed 10-7-05 have been fully considered.

*Claim 12 includes the limitation of "including a first chip having electrode pads thereon" and applicant argues that Nam et al. do not meet this limitation.*

Apparatus 40 of Nam et al. is capable of providing such a substrate because Nam et al. teach a means (item 42) to provide a substrate (item 60). Also, the limitation refers to the material operated upon by the claimed apparatus which does not provide a structural difference between the claimed apparatus and apparatus 40 of Nam et al.

*Claim 12 includes the limitation "an insulating adhesive tape" and applicant argues that Nam et al. do not meet this limitation.*

Apparatus 40 of Nam et al. is capable of providing such a tape because Nam et al. teach a tape providing unit (item 74) to provide a tape (item 68). It is noted that tape 68 of Nam et al. is an insulating adhesive tape (c 3, L 53-66).

*Claim 12 includes the limitation "for attaching one side of the insulating adhesive tape to the first chip between the electrode pads of the first chip" and applicant argues that Nam et al. do not meet this limitation.*

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Apparatus 40 of Nam et al. is capable of attaching one side of tape 68 to substrate 60. Also, with respect to the limitation of "to the first chip between the electrode pads of the first chip", apparatus 40 of Nam et al. is capable of placing tape 68 at such a location should substrate 60 be provided with a first chip having electrode pads thereon where tape 68 could be received between the pads. The limitation also refers to the material operated upon by the claimed apparatus which does not provide a structural difference between the claimed apparatus and apparatus 40 of Nam et al.

*Claim 12 includes the limitation "for attaching a second chip to the other side of the insulating adhesive tape" and applicant argues that Nam et al. do not meet this limitation.*

Apparatus 40 of Nam et al. is capable of attaching chip 72 (c 4, L 43-57). Also, with respect to the limitation of "to the other side of the insulating adhesive tape", apparatus 40 of Nam et al. is capable of placing chip 72 at such a location should substrate 60 be provided with a first chip having electrode pads thereon where tape 68 could first be received between the pads. The limitation also refers to the material operated upon the by claimed apparatus which does not provide a structural difference between the claimed apparatus and apparatus 40 of Nam et al.

*Applicant argues that Nam et al. do not meet the limitation of claim 20.*

The limitations of claim 20 are functional limitations for which apparatus 40 is capable of performing.

**Conclusion**

**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**8.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Gray whose telephone number is (571) 272-1228. The examiner can normally be reached Monday-Friday from 9:00 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla, can be reached at (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public Pair. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-1997 (toll-free).

llg   
January 6, 2006

  
LINDA GRAY  
PRIMARY EXAMINER